# ESTABLISHING IN-HOUSE WASTE REDUCTION PROGRAMS

Joseph W. Phillips
Tennessee Valley Authority
Economic Development
Post Office Box 1010
Muscle Shoals, Alabama 35662
(205) 386-3035
e-mail: jwphilli@tva.gov

Many public and private groups offer waste reduction services for manufacturing companies. Most offer valuable services that can help companies identify potential savings far in excess of their cost. However, these services represent snapshots in time, and, much like total quality management principles, will not take hold and influence the company as a whole without a change in corporate culture that embraces the principles of waste reduction as a routine, day by day, way of doing business.

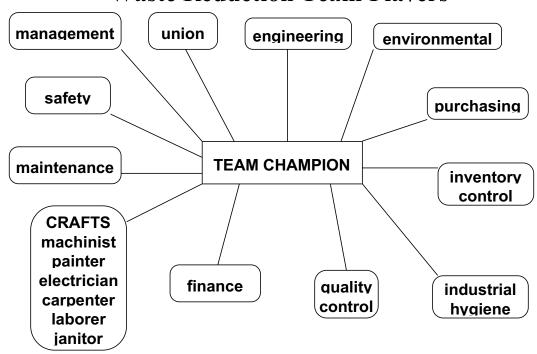
Most waste reduction services (especially those offered by public organizations) promote environmental improvements such as reducing pressure on landfill space or reducing emissions to the air or water. However, the principle value of waste reduction to the corporate community is based on enhancing business competitiveness by reducing cost, as well as, improving quality and employee morale. The company has the biggest investment and the most to gain by embracing waste reduction as a tool that promotes process modification to achieve continuous improvement in products and services.

To be successful, waste reduction must be promoted as corporate policy. A strong policy statement backed by actions that support and promote waste reduction for process improvement is a necessary underpinning for establishment of a multidisciplinary process improvement team. Teams were made popular in the early stages of the quality movement in the United States. Many companies that have tried the concept with varying degrees of success. Nowhere are teams more appropriate or potentially rewarding than in dealing with waste reduction at the source. Also, properly constituted and supported a process improvement team focusing on waste reduction can have far reaching impacts on company competitiveness and profitability.

A multidisciplinary team should be made up of representatives from all facets of plant operations centered around a cause champion. Although the environmental manager may seem to be the best choice for the cause champion, a better choice may be the production superintendent or the purchasing manager. The figure below illustrates the groups within the plant that

should be represented on the team. Obviously, in a small company or facility several of these positions may either filled by the same person or not exist.

## **Waste Reduction Team Players**



The reasons for including representatives of groups such as management, environmental, quality control, engineering, safety, and industrial hygiene are clear. But why include purchasing, finance, union, inventory control, maintenance, and crafts on such a team? Let's look at some of the reasons.

Materials are usually purchased through a procurement or purchasing group. A representative from this group will have a handle on the cost of materials and on the total quantity of materials needed to make the company's product. The production supervisor will know specifics such as unit weight and total production. However, the production supervisor may not know how much material was purchased to support the production. A discrepancy between total quantity of materials purchased and total production can indicate a potentially productive area to investigate as a means for recovering lost material.

Strategic partnering is a new approach to purchasing that takes into account the full cost of a purchase not just the low unit cost. Historically, the more suppliers the better. With purchasing agents as part of the waste reduction team strategic partnering to reduce the number of suppliers and the attendant costs will be supported. With fewer suppliers the company and each supplier can become partners with a mutual interest in each others success.

The finance group will bring to the table information on company policies for funding projects. Often low or no cost projects sell themselves. But as the team progresses projects that require capital will be identified. A company's policy on simple payback for projects is important information for these discussions.

A cost cutting program that does not include layoffs can be supported by union representatives even in a shop where tensions have caused problems in the past. Data indicate that the cost of waste in many manufacturing facilities is more than the payroll which is usually considered the second largest cost of doing business behind raw materials. Employees from the shop floor (often union representatives) are often the richest source of suggestions for improvements. They can also provide needed support for approaching waste in areas such as counterproductive work rules

Including a representative of inventory control will help the team identify wasted time and resources associated with handling raw materials and finished goods. Maintenance can be the source of ideas for waste reduction from improved preventive maintenance to savings in purchase of maintenance supplies. And crafts employees are often the only people in the plant that understand some of the problems that result in waste of raw material and time.

#### **In-house Team Advantages**

In-house teams have many advantages. When it comes to access to information and an understanding of the company's operations, a team of trusted employees will be in the best position to obtain and interpret company data. Development of an in-house team certainly enhances the possibility that waste reduction will become internalized within the company increasing the long-term potential for benefits.

The team process in general and the waste reduction process specifically can open the quality management process to employees without the typical drop in productivity associated with uncertainty surrounding the process. In fact, employees in general and the team in particular will have a cost cutting project that can be supported without the underlying threat of layoffs to meet revenue goals.

### **In-house Team Disadvantages**

As with any new concept, there are disadvantages to implementing waste reduction through a team approach. This especially true if the team is commissioned without outside help. The bulk of savings from waste reduction occur through "source reduction", that is not making the waste in the first place. Finding these types of savings are greatly affected by the "forest for the trees syndrome" and the "we've always done it this way virus".

Both conditions are highly treatable among open minded employees but some of the most difficult to treat are often senior management. Treating these maladies involves up-front training on waste reduction and source reduction principles as they relate to the companies operation. The emphasis should be on looking at things from a different perspective or a "new set of eyes". Bringing in outside assessors and/or trainers on these subjects and setting aside time for group training as well as team building is essential.

Another malady that often affects line employees is the "if they change the way it's done, I'll loose my job flu". These concerns are usually based on a lack of trust and can be insidious. The simple act of establishing an in-house team can begin the process of improving employee trust. Including line employees and union representatives will illustrate openness. Following through on recommendations will illustrate the value placed on employees by management and continue the trust building process.

#### Conclusion

To get started "just do it!" Write that policy statement, pick your team, and start your training. Make sure the team knows that management is behind the process and will listen to the teams suggestions. Be willing to try suggestions especially low or no cost ideas. Have the team track the progress and report on results. As the team builds confidence and team dynamics begin to work, real savings can be expected.

Implementing waste reduction principles is just the right thing to do.

It's right for the company
It's right for the customer
Improves quality
It's right for the employee
Improves Moral

It's right for the community Improves the environment